What's New this Winter

NWS Weather and Water Workshop
September 17, 2008

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NWS Portland

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Outline

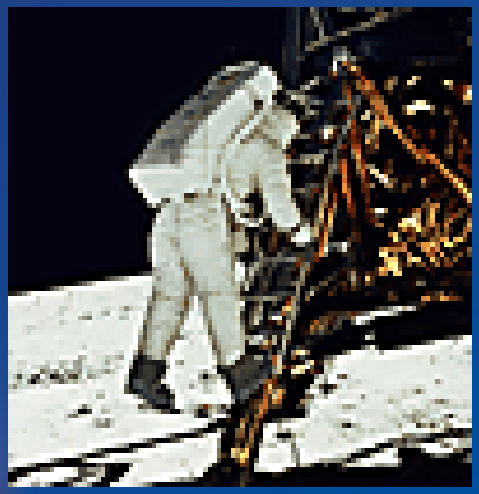
- NWS Mobile Application
- IEM Chat
- Winter Storm Bulletins – A change from previous years
- GIS & NWS weather data

Exciting Times in History

Promontory Point, UT 1869

Model T: 1908-1927

July 20, 1969



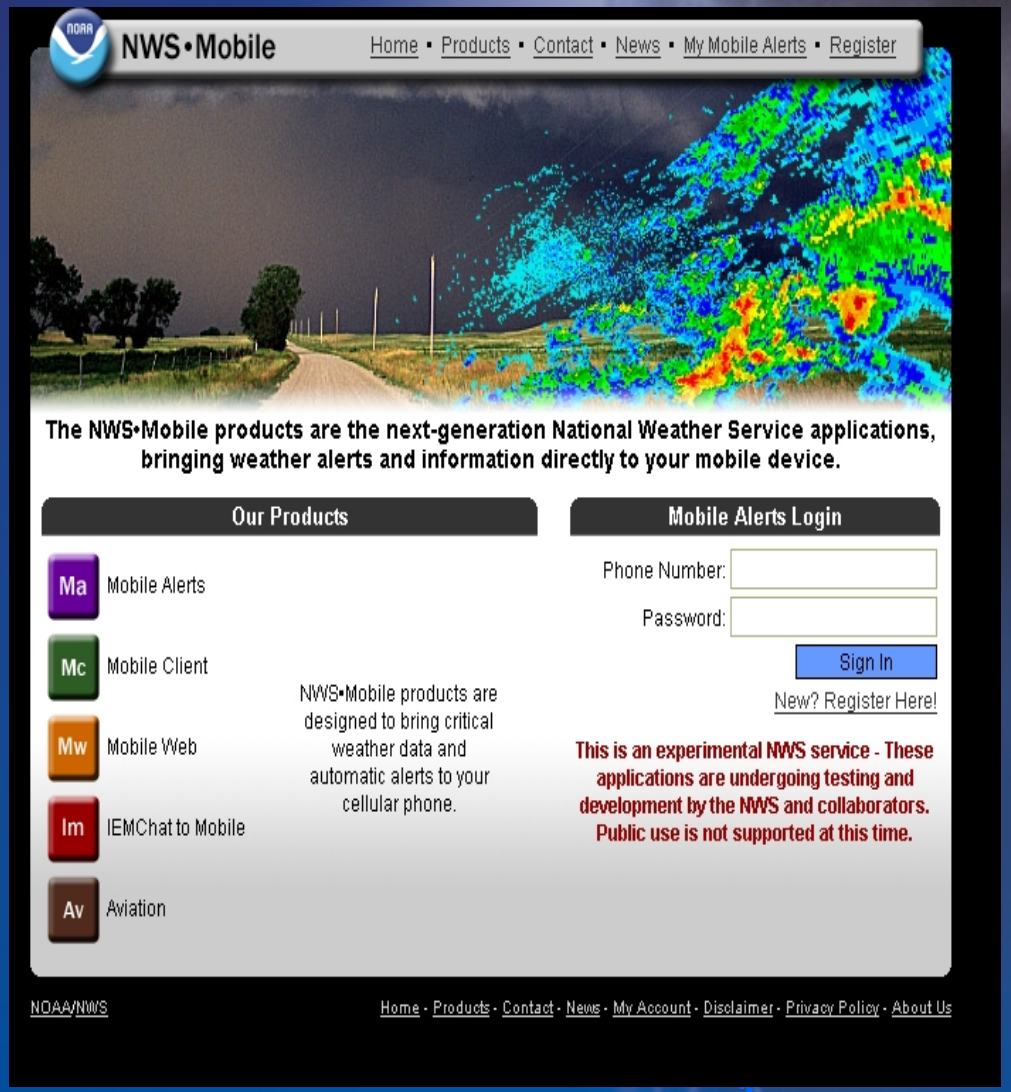
Twenty-First Century

New Advances in Communication

- Rapid advances in communication technology
- Re-think how we communicate and disseminate information
- Developing new applications to take advantage of rapidly changing communication technology
- Exploiting new technologies
  - *Making an investment for the future*

NWS Mobile

- Targeted at community decision makers, and news media
- Weather at your fingertips!
- Weather alerts on your PDA
- Radar imagery on your PDA
- *Just Released*
  - Ready for Community Decision Makers



http://nwsmobile.wrh.noaa.gov/

NWS Mobile – *interactive NWS (iNWS)*

- **New webpage debuted just a few days ago**

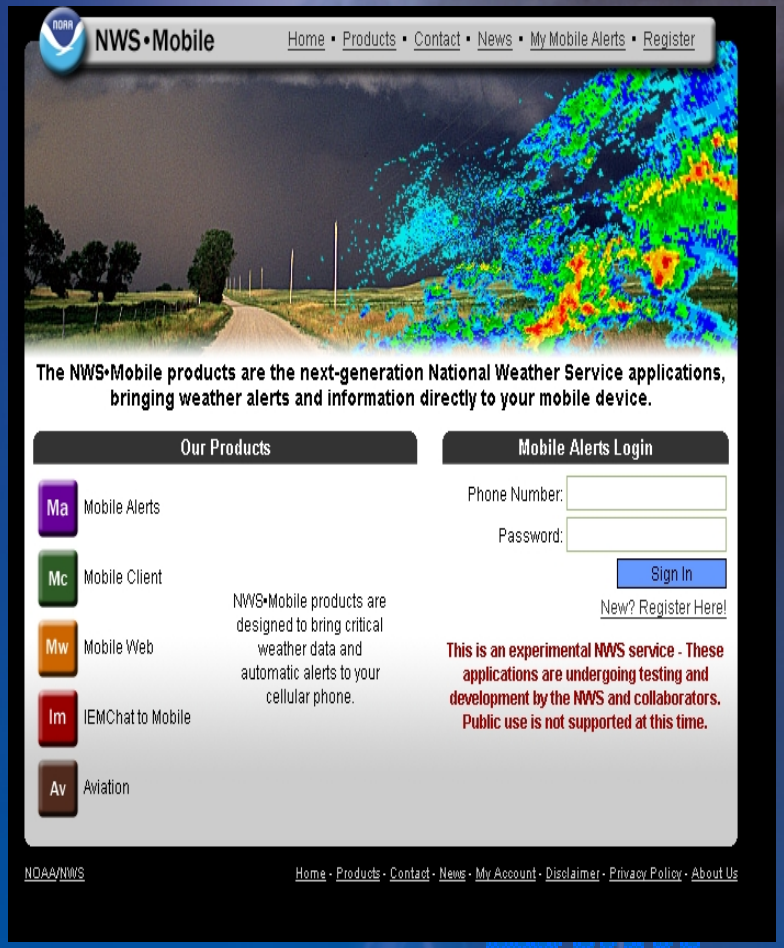
http://nwsmobile.wrh.noaa.gov

NWS Mobile Alerts

- Allows users to configure and receive Text Message Alerts when the NWS issues a watch, warning, or advisory that affects you

- Users can set up personal profile and configure their alert preferences geographically and by weather phenomena

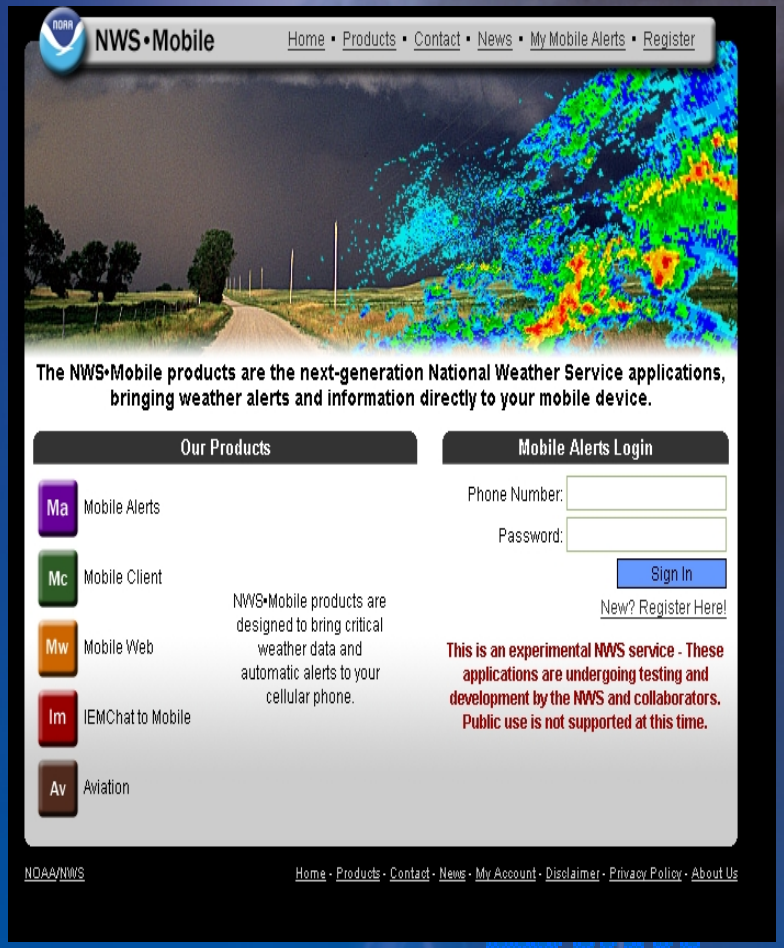
  - ✓ Winter Weather
  - ✓ Wind Storms
  - ✓ Severe Weather
    (severe thunderstorm, tornado)
  - ✓ Flooding
  - ✓ Fire Weather
  - ✓ Marine Weather



http://nwsmobile.wrh.noaa.gov/

NWS Mobile Client

- Allows users to browse webpages for the following weather data via their PDA/Smart phone
  - ✓ Satellite imagery
  - ✓ Radar imagery
  - ✓ Forecasts
  - ✓ Observations
- Requires JAVA enabled mobile device



http://nwsmobile.wrh.noaa.gov/

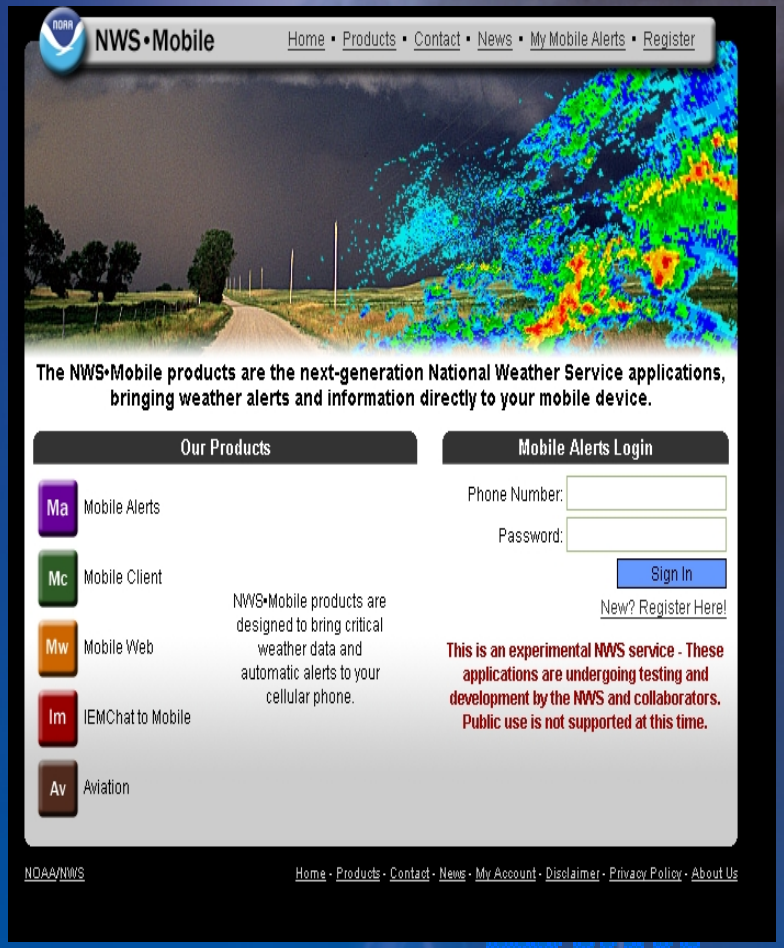
NWS Mobile Web

- Use your phone's web browser to access NWS mobile web at :

  http://mobile.wrh.noaa.gov

- Search by zip code, city, state

  - ✓ Current watches, warnings, and advisories
  - ✓ Current conditions Radar imagery
  - ✓ Satellite imagery
  - ✓ Forecast information



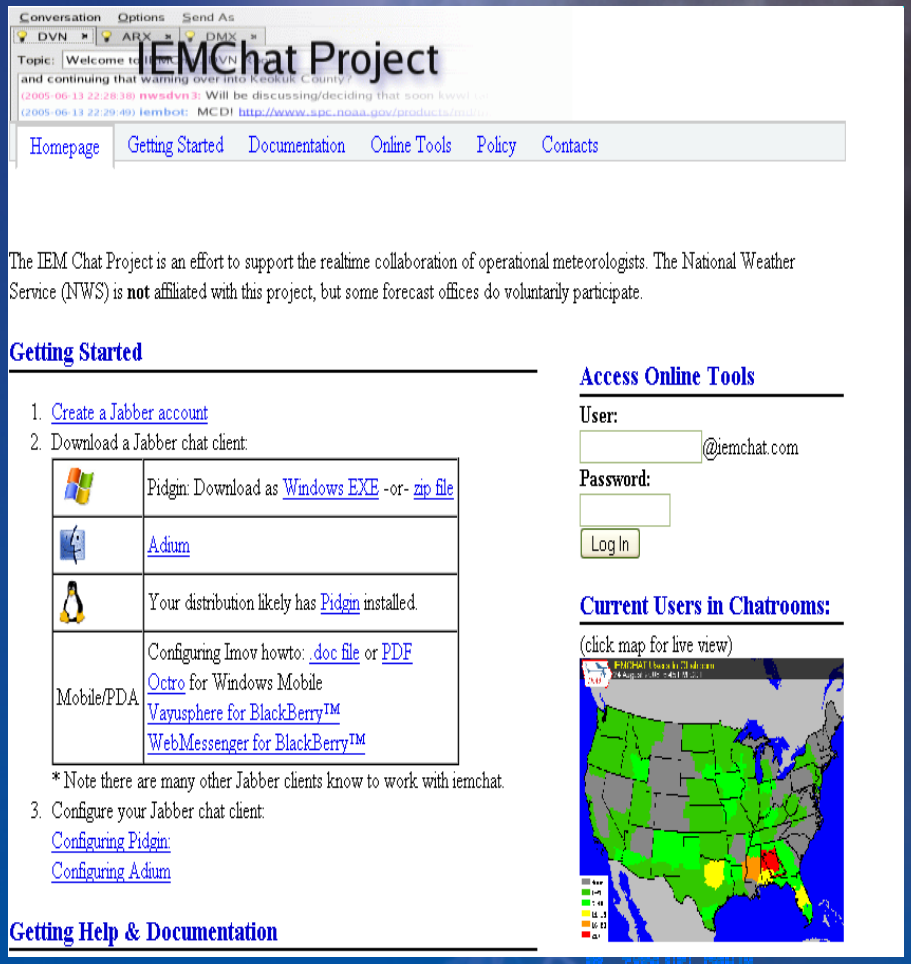
http://mobile.wrh.noaa.gov/

NWS Mobile

- How do I get Started?
- Register and/or login at the following URL:
  - ✓ **http://nwsmobile.wrh.noaa.gov/user/register**
- Once you are logged in, you can configure your alert preferences and more
- Need PDA or Smart Phone that is JAVA enabled
- Free!

IEM Chat Project

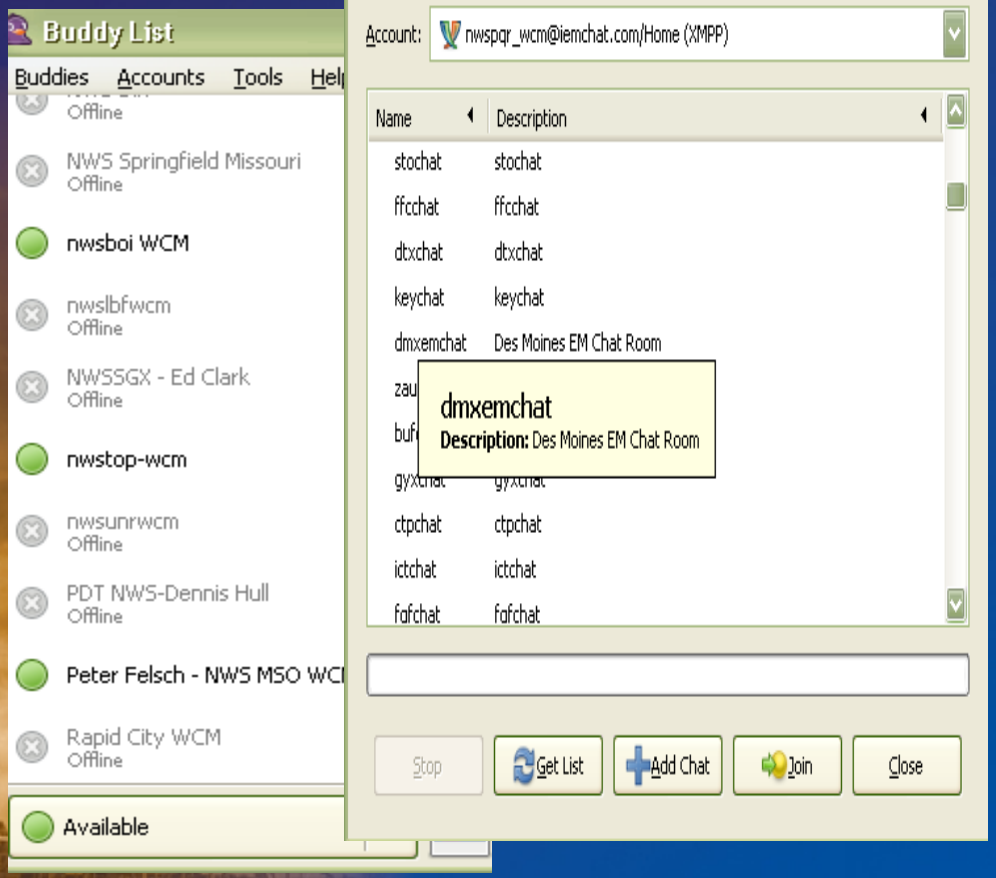
- Chat Room
- Real-time collaboration with operational meteorologists
- Success in southern US with Media
  - real time interaction during severe weather
- We are looking to prototype with customer(s) / agency this winter

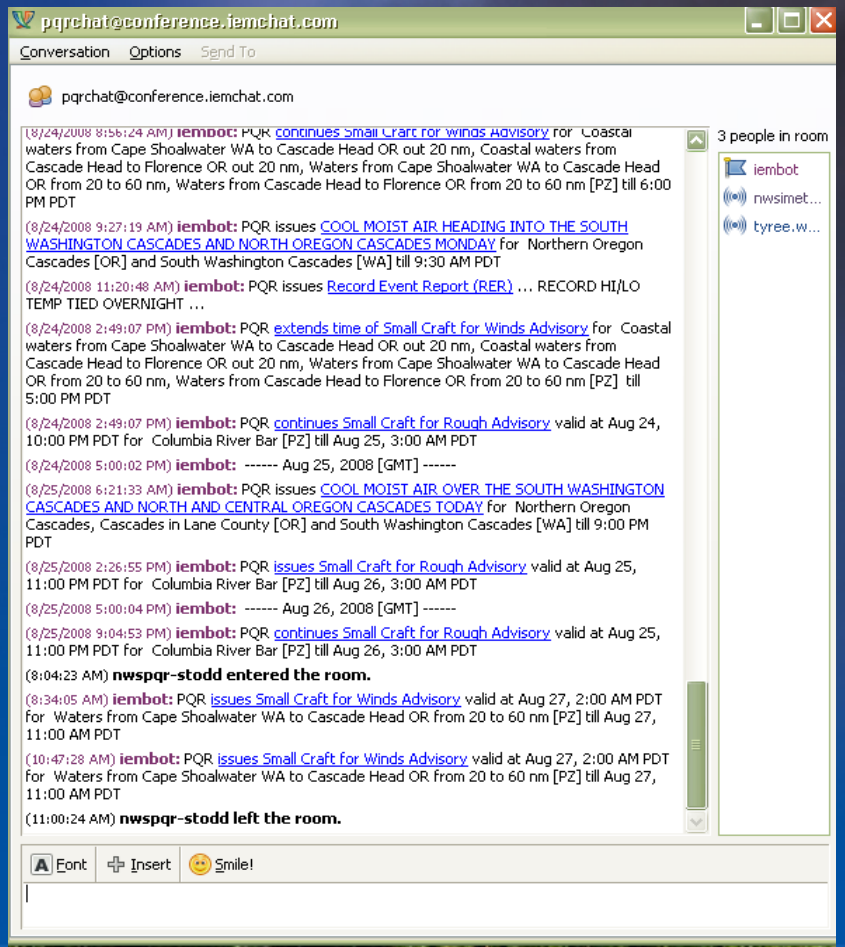


https://iemchat.com/

IEM Chat

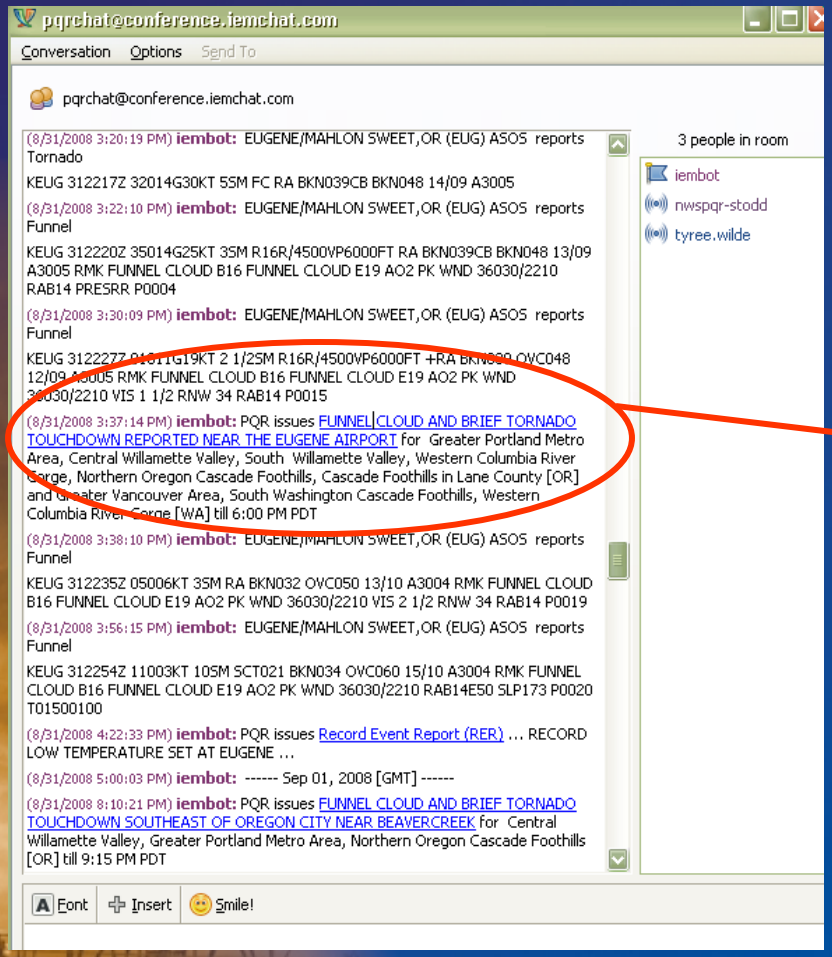
- Chat Room
- Multiple Chat Rooms
- IEM Bot
- Record and hyperlink to any warning product

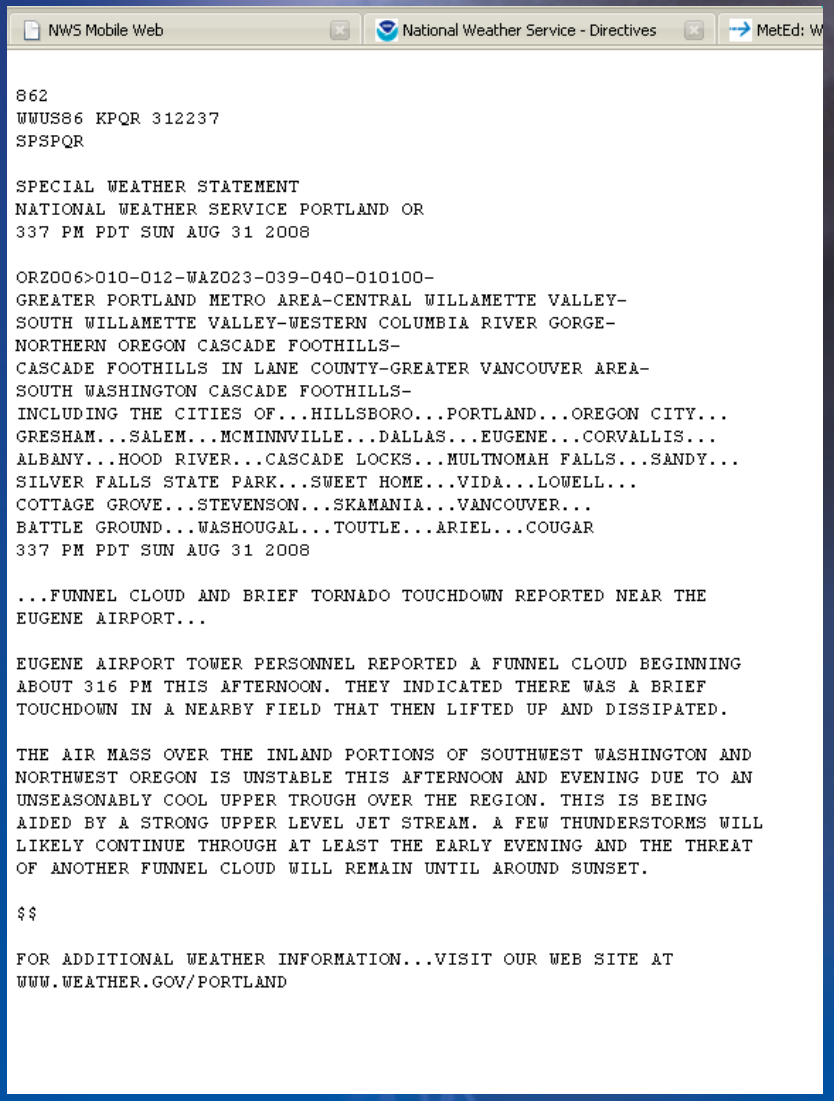




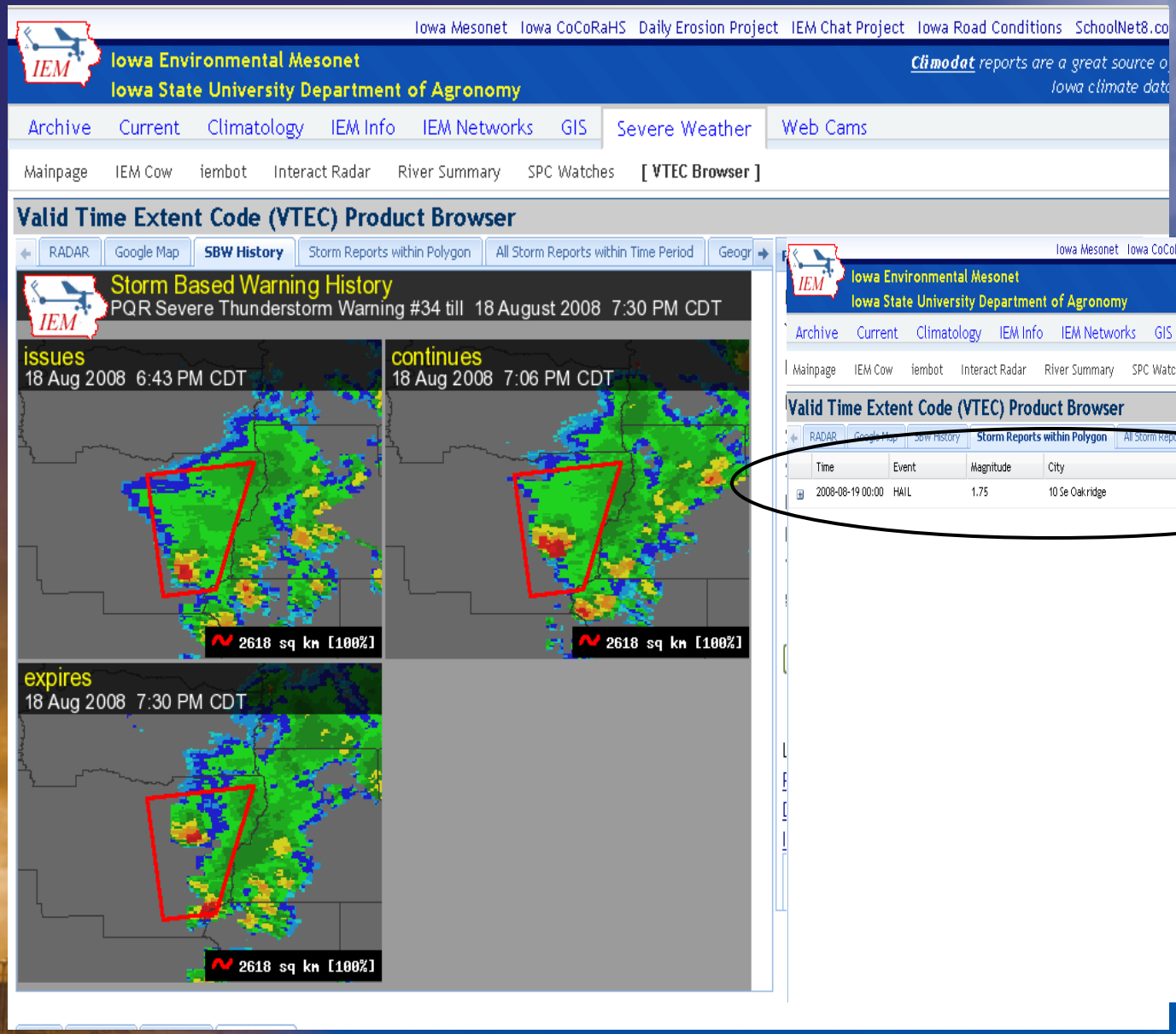
Bonus Feature – IEM Bot

- IEM Bot
- Record and hyperlink to any warning product





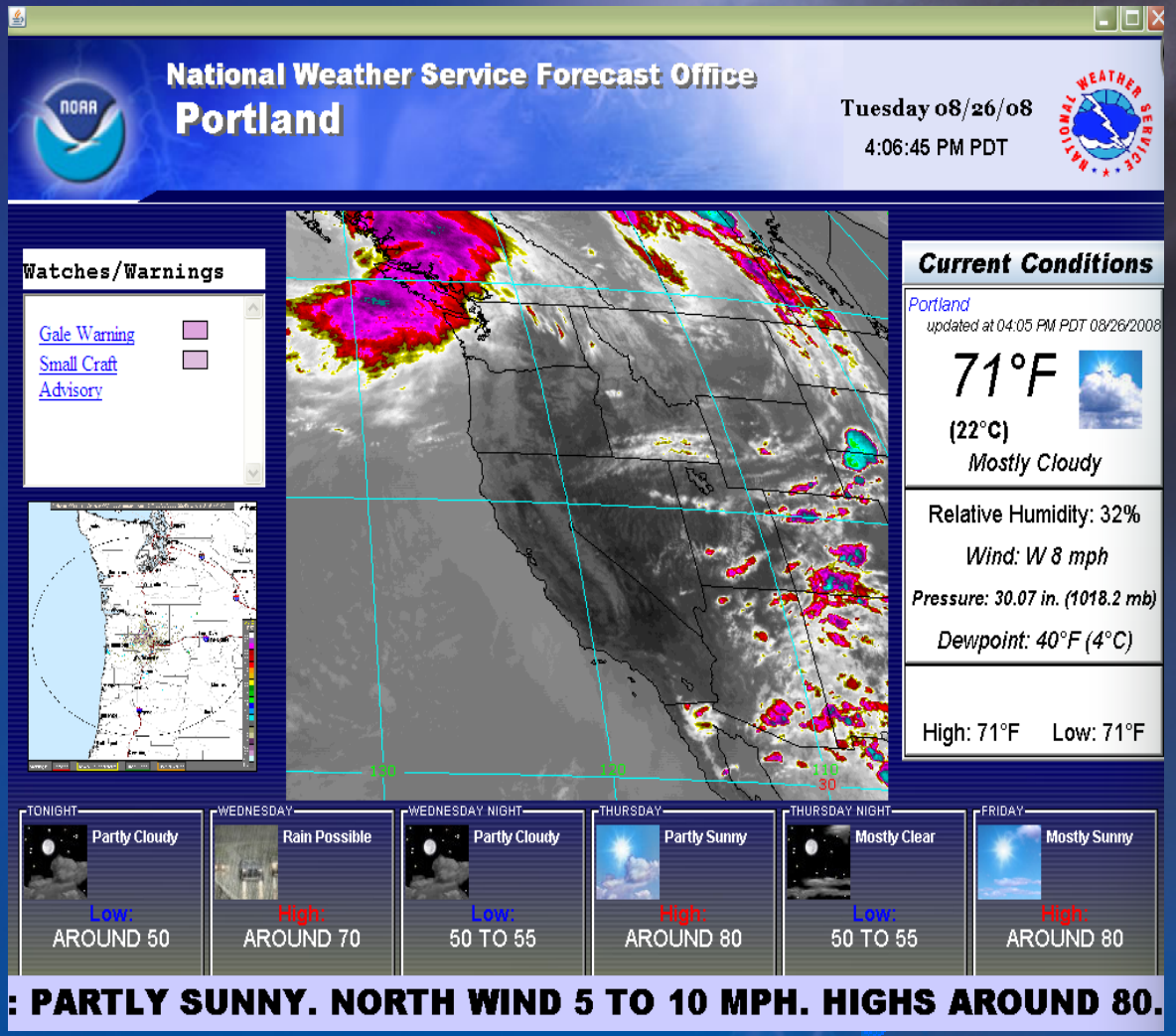
IEM BOT


Iowa Mesonet Iowa CoCoRaHS Daily Erosion Project IEM Chat Project Iowa Road Conditions SchoolNet8.co
Iowa Environmental Mesonet
Iowa State University Department of Agronomy
Climodat reports are a great source o
Iowa climate data
Archive Current Climatology IEM Info IEM Networks GIS Severe Weather Web Cams
Mainpage IEM Cow iembot Interact Radar River Summary SPC Watches [VTEC Browser]
Valid Time Extent Code (VTEC) Product Browser
RADAR Google Map SBW History Storm Reports within Polygon All Storm Reports within Time Period Geogr
Storm Based Warning History
PQR Severe Thunderstorm Warning #34 till 18 August 2008 7:30 PM CDT
issues
18 Aug 2008 6:43 PM CDT
2618 sq km [100%]
continues
18 Aug 2008 7:06 PM CDT
2618 sq km [100%]
expires
18 Aug 2008 7:30 PM CDT
2618 sq km [100%]
Iowa Mesonet Iowa CoCoRaHS Daily Erosion Project IEM Chat Project Iowa Road Conditions SchoolNet8.com
Iowa Environmental Mesonet
Iowa State University Department of Agronomy
View images from 20+ webcameras
Archive Current Climatology IEM Info IEM Networks GIS Severe Weather Web Cams
Mainpage IEM Cow iembot Interact Radar River Summary SPC Watches [VTEC Browser]
Valid Time Extent Code (VTEC) Product Browser
RADAR Storm Reports within Polygon
Time Event Magnitude City County
2008-08-19 00:00 HAIL 1.75 10 Se Oakridge Lane
Product Overview
NWS WFO: [PQR] PORTLAND
Year: 2008
Event ID: Previous 34 Next
Phenomena: [SV] Severe Thunderstorm
Significance: [W] Warning
Status: expires
Issued: 2008-08-18 23:43 GMT
Expires: 2008-08-19 00:30 GMT
Warning geography: Storm based warning
Load Product
Links:
Polygon Verification
Download Shapefile of Warnings
Interactive RADAR Display

FLARE

(Fully Localized Atmospheric Research Environment)

- Situational Awareness Display
  - ideal for EOCs
  - desktop weather display
- Free download from NWS
- Easy to setup/configure



Download: http://www.wrh.noaa.gov/wrh/ssd/flare.msi

Documentation: http://www.wrh.noaa.gov/wrh/ssd/index-flare.msi

Streamline Winter Products

Existing suite of Winter Advisories

Freezing Rain
Winter Weather
Snow
Snow & Blowing Snow
Sleet
Blowing Snow

New suite of Winter Advisories

Freezing Rain
Winter Weather

Existing suite of Winter Warnings

Blizzard
Ice Storm
Wind Chill
Winter Storm
Heavy Snow
Sleet

New suite of Winter Warnings

Blizzard
Ice Storm
Wind Chill
Winter Storm

GIS Applications

GIS

&

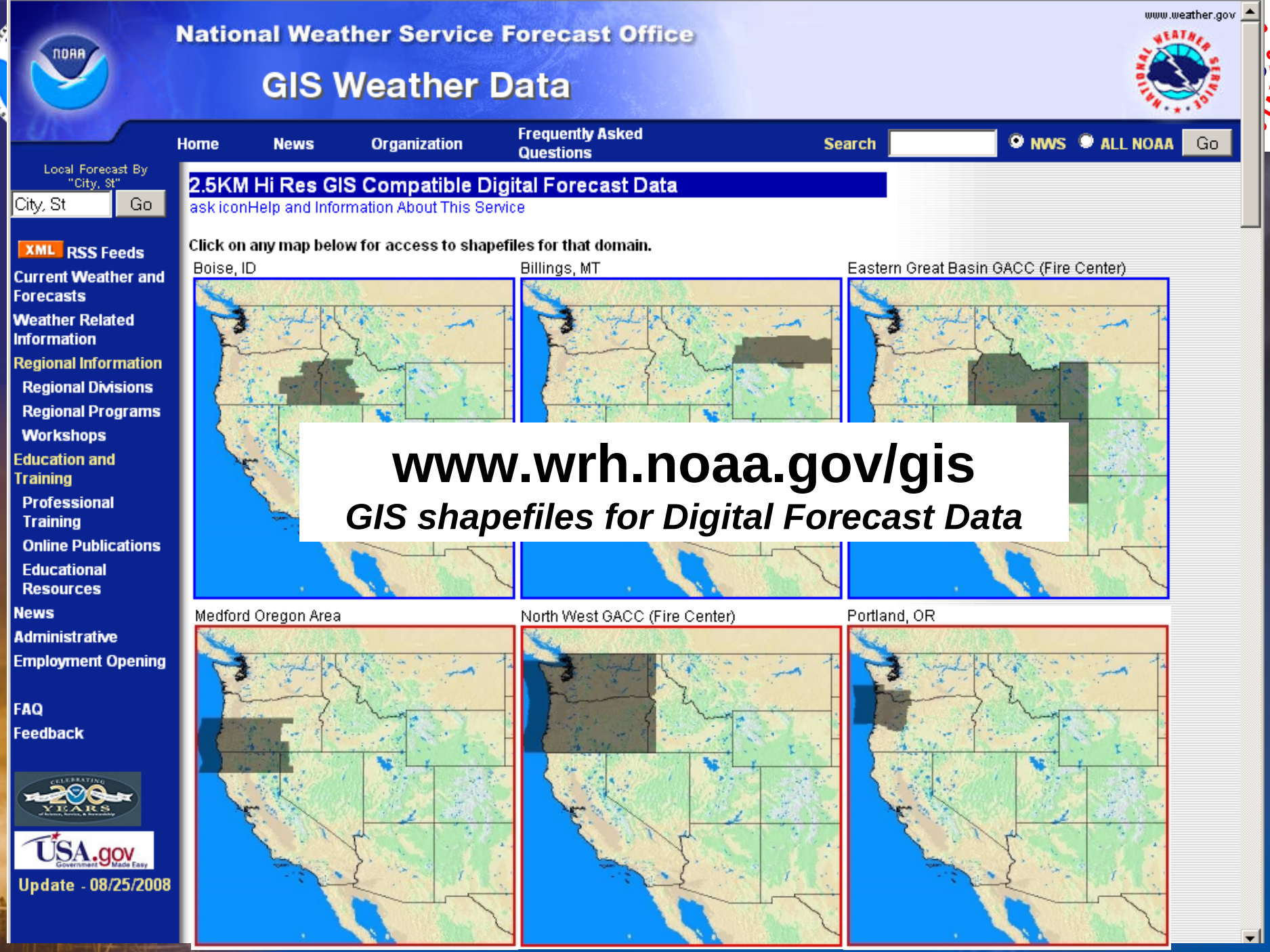
NWS Weather Data

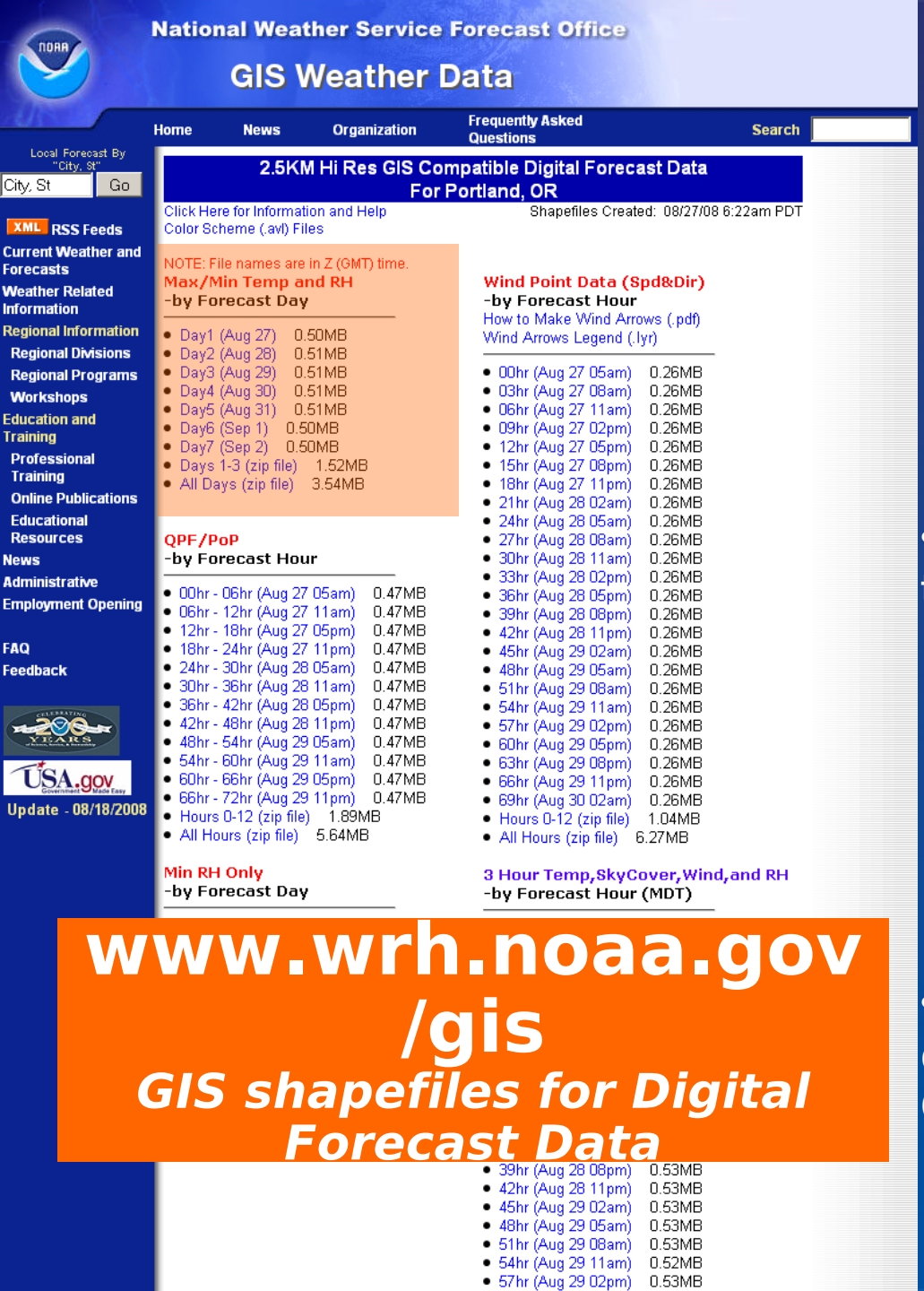
Andy Bryant

GIS

(Geographic Information Systems) Applications & Resources

- Western Region GIS Compatible Digital Forecast Data in shapefile format
- NOAA nowCOAST web mapping portal
- Google Earth layers
- NOAA/NWS websites for GIS data


National Weather Service Forecast Office
GIS Weather Data
www.weather.gov
Home
News
Organization
Frequently Asked Questions
Search
NWS
ALL NOAA
Go
Local Forecast By "City, St"
City, St
Go
XML RSS Feeds
Current Weather and Forecasts
Weather Related Information
Regional Information
Regional Divisions
Regional Programs
Workshops
Education and Training
Professional Training
Online Publications
Educational Resources
News
Administrative
Employment Opening
FAQ
Feedback
Update - 08/25/2008
2.5KM Hi Res GIS Compatible Digital Forecast Data
ask iconHelp and Information About This Service
Click on any map below for access to shapefiles for that domain.
Boise, ID
Billings, MT
Eastern Great Basin GACC (Fire Center)
Medford Oregon Area
North West GACC (Fire Center)
Portland, OR
www.wrh.noaa.gov/gis
GIS shapefiles for Digital Forecast Data

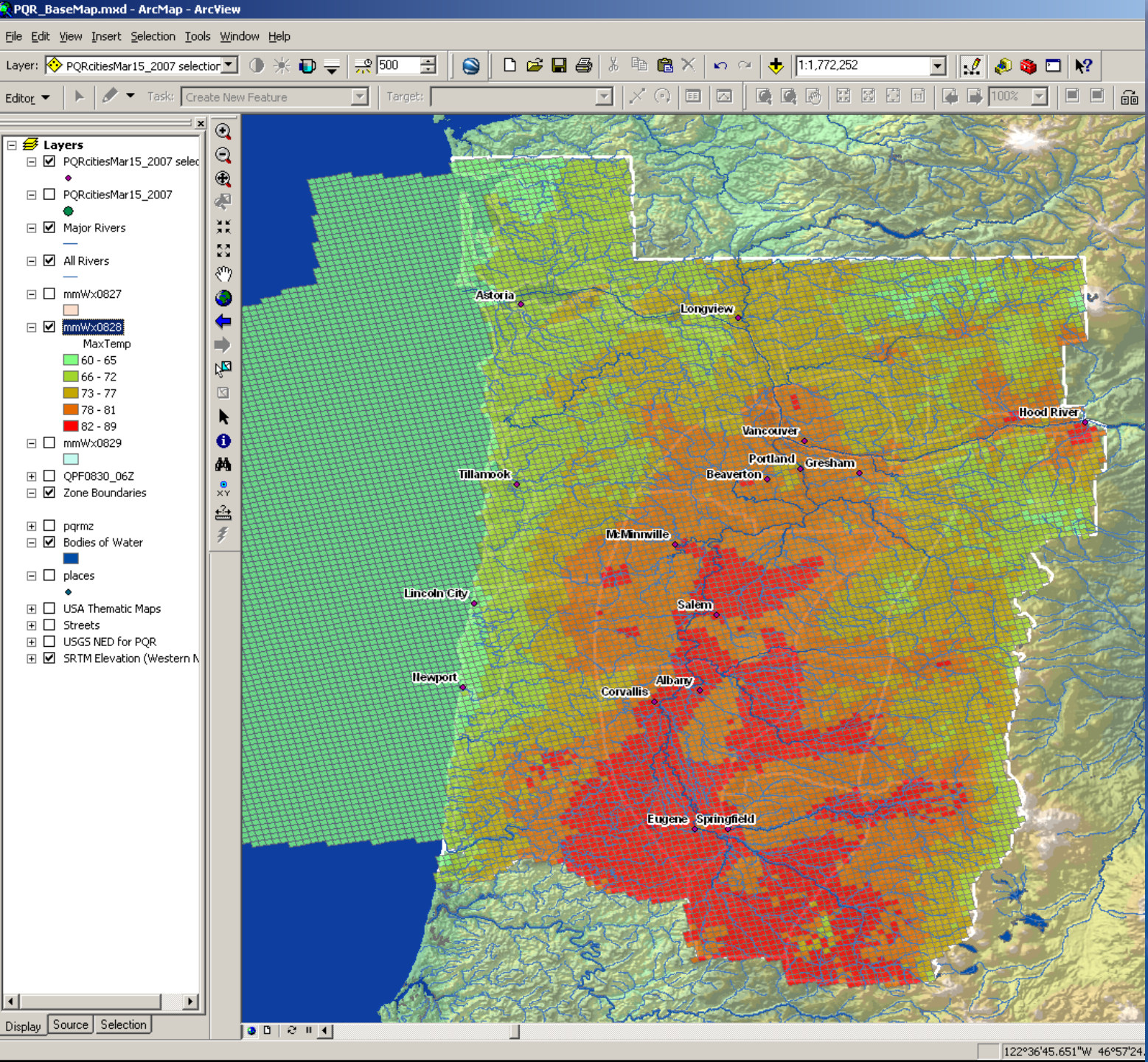


www.wrh.noaa.gov/gis

GIS shapefiles for Digital Forecast Data

GIS Weather Data for NW Oregon & SW Washington

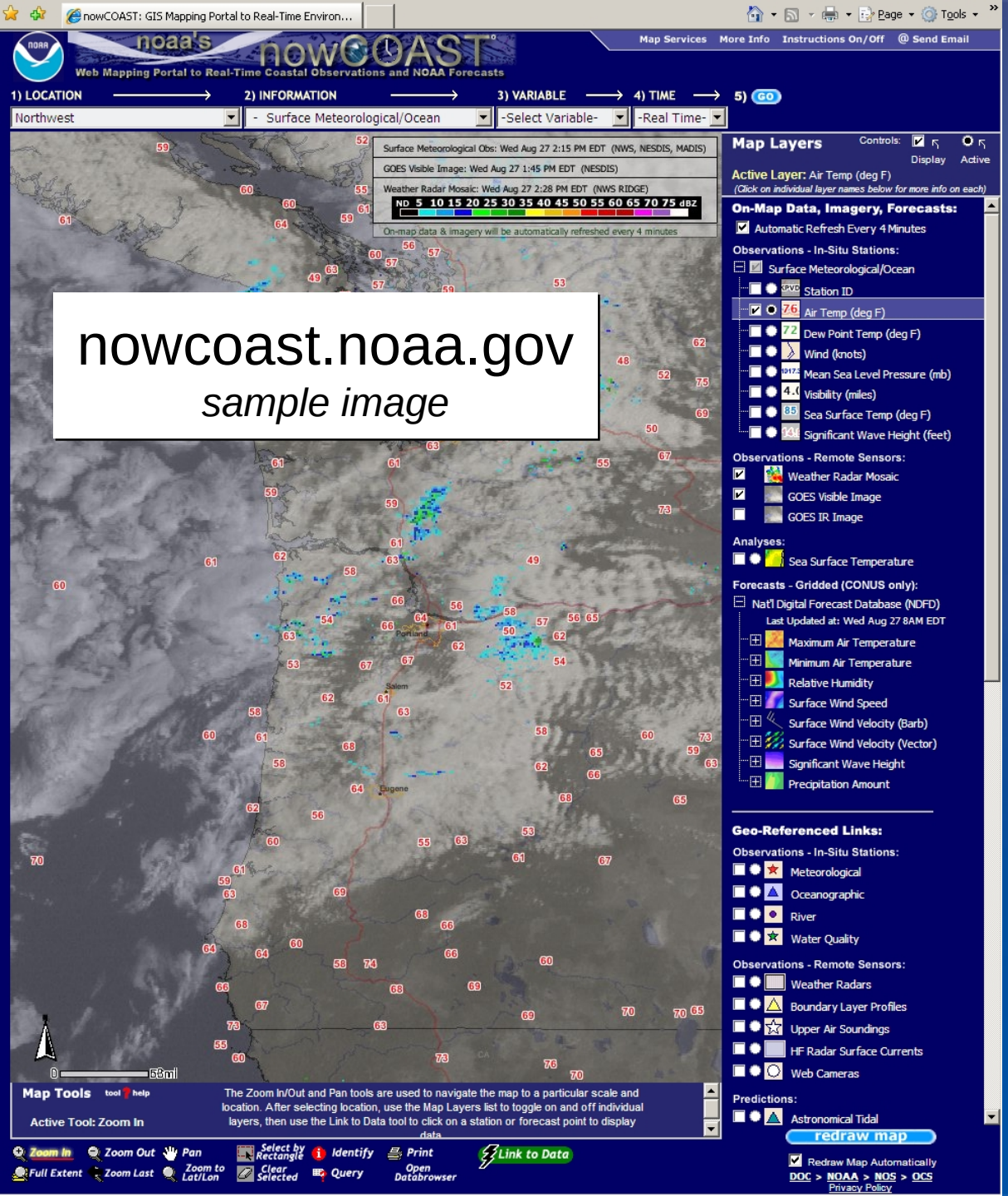
- Forecast Shapefiles available for the following weather elements:
  - Temperature
  - Humidity
  - Precipitation
  - Wind
  - Sky Cover
- Display and analyze data with other non-NWS data sets using GIS tools



NATIONAL WEATHER SERVICE

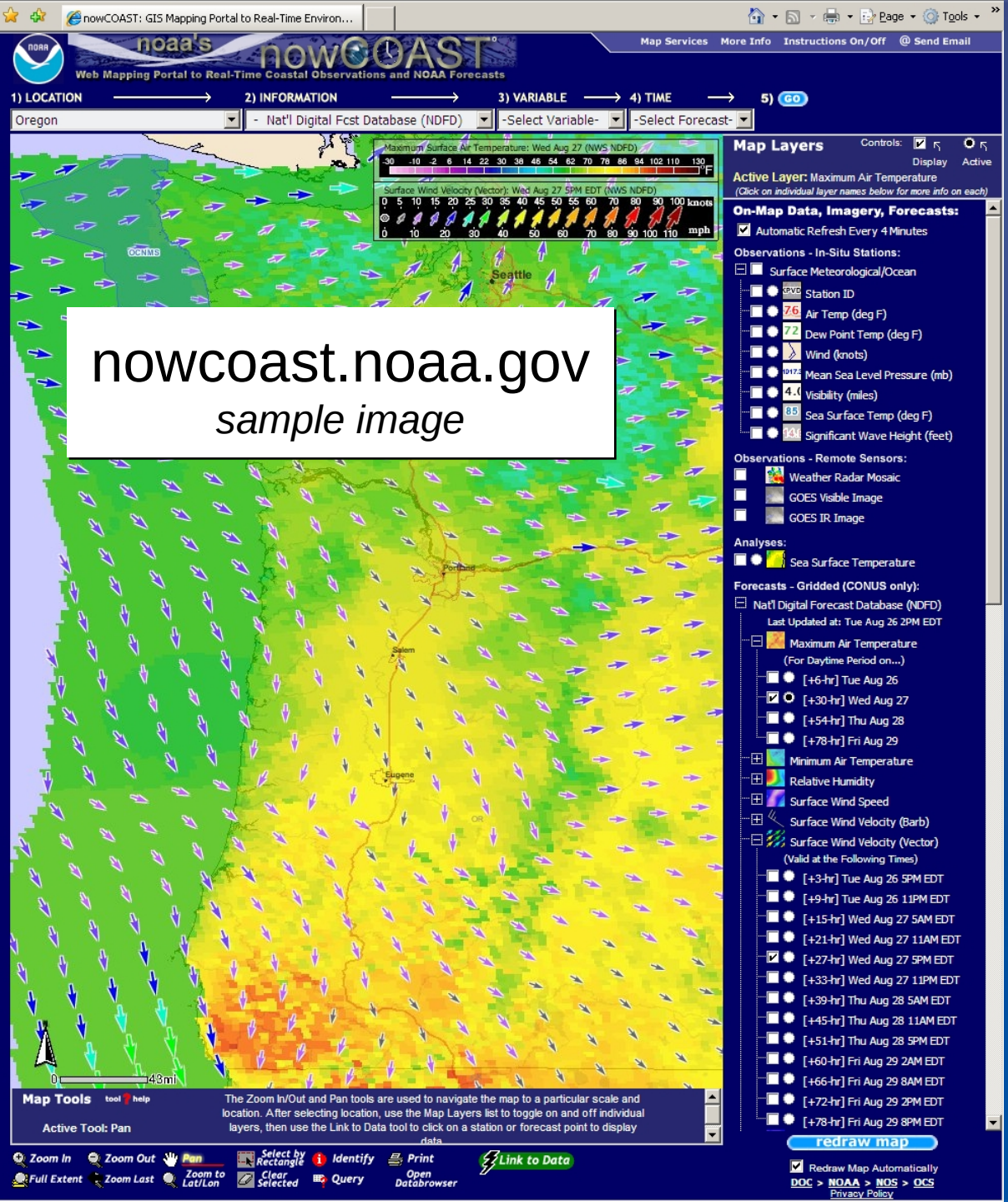
Display of Max Temp forecast grid

in ESRI ArcMap



NOAA's nowCOAST

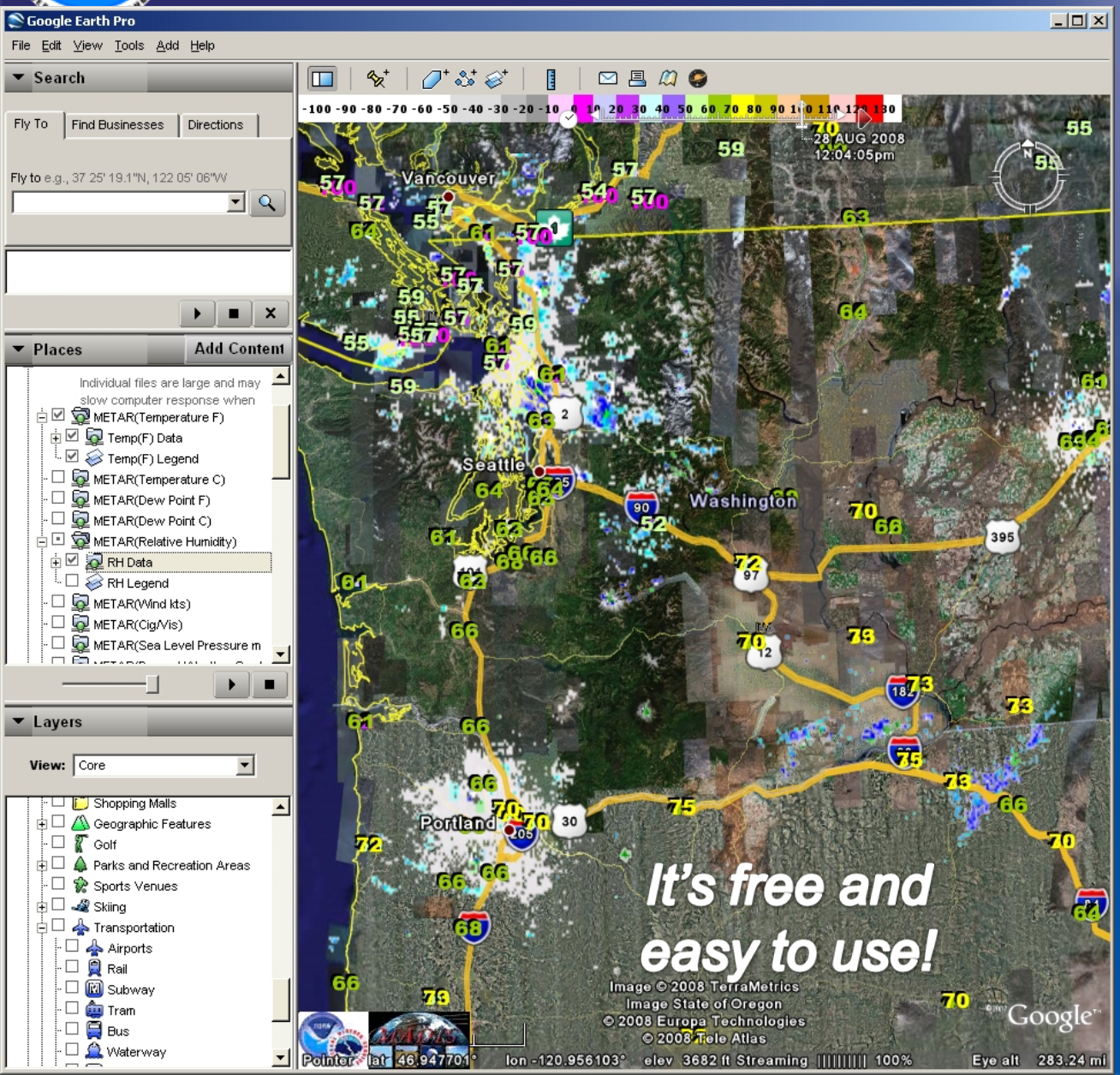
- Observed Data
  - *Observed temp at primary obs sites*
  - *GOES visible satellite image*
  - *Mosaic of Doppler Radar reflectivity data*



NOAA's nowCOAST

- NDFD forecasts from the NWS
  - *surface wind velocity, shown as vectors*
  - *max temp forecast, shown as grid image*

Google Earth



Snapshot of a basic Google Earth display showing:

- *Composite reflectivity loop for PacNW radars*
- *Current temperature at primary weather stations*

National Weather Service GIS Data Links

NWS KML/KMZ Links

Site Map | News | Organization | Search Enter Search Here Go

Local weather forecast by "City, St"
City, St Go

RSS Feeds XML

Watches/Warnings
Current
By State/County
UV Alerts
more...

Observations
Doppler Radar
Satellite
Snow Cover
Surface Weather
Observed Precip
more...

Forecasts
By Local Office
Graphical
Aviation Weather
Marine Weather
Hurricanes
Severe Weather
Fire Weather
Numerical Models
Statistical Models
more...

Text Messages
By State
By Message Type
National

Climate
Past Weather
Predictions

Weather Safety
Weather Radio
Hazard Assessment
StormReady
TsunamiReady
more...

Education/Outreach
Brochures
NOAA Education Page
Teacher's Aides
more...

Information Center
Tsunamis
Publications
more...

Contact Us
FAQ
Comments

National Weather Data in GIS formats

www.srh.noaa.gov/gis/kml

available data for Google Earth & ArcGIS

SAFE SOFTWARE — FME (Feature Manipulation Engine) that converts data in one format to another - KML file format support - (Purchase) - download from Safe.com

The following links will either provide kml/kmz/shape files, will link you to a page with these type of files, or displays info in a GIS viewer.

Current Weather

Watches & Warnings
Current Weather Warnings
Flash Flooding - Basins and Streams

Doppler Radar
Real Time Radar
Radar Locations

Surface Observations
Metar Obs
RAWS Obs
APRSWXNET Obs
MesoWest Obs
Other Surface Obs

Satellite
Infrared | Loop
Visible | Loop
Water Vapor | Loop

Remote Gages
River Gages: Observed
Snow Gages: w/ labels | w/o labels

Great Lakes
Wave Height
Ice
Water Temperature

Surface Fronts
Past and Present Synoptic Features

Forecasts

Your Local Weather Forecast

MOS Guidance

GFS Meteograms

GOES Sounding Skew-T

Tulsa area: Max | Min | POP

River Gage Forecasts

Past Weather

Doppler Radar
NWS Radar archive data

Normals, Means, Extremes
NCDC Climate Atlas of the United States
NCDC GIS Portal

Severe Weather
Storm Reports: Tornado, Wind and Hail
1950-2006 Database of Tornado, Large Hail, and Damaging Wind Reports

Rain/Snowfall
CoCoRaHS Observations
NOHRSC Snow Data

Hurricanes
Past Atlantic Storm Tracks
Past East Pacific Storm Tracks

Fire Weather

Current Spot Forecast Sites

Fire Weather Categorized Observations

MODIS fires

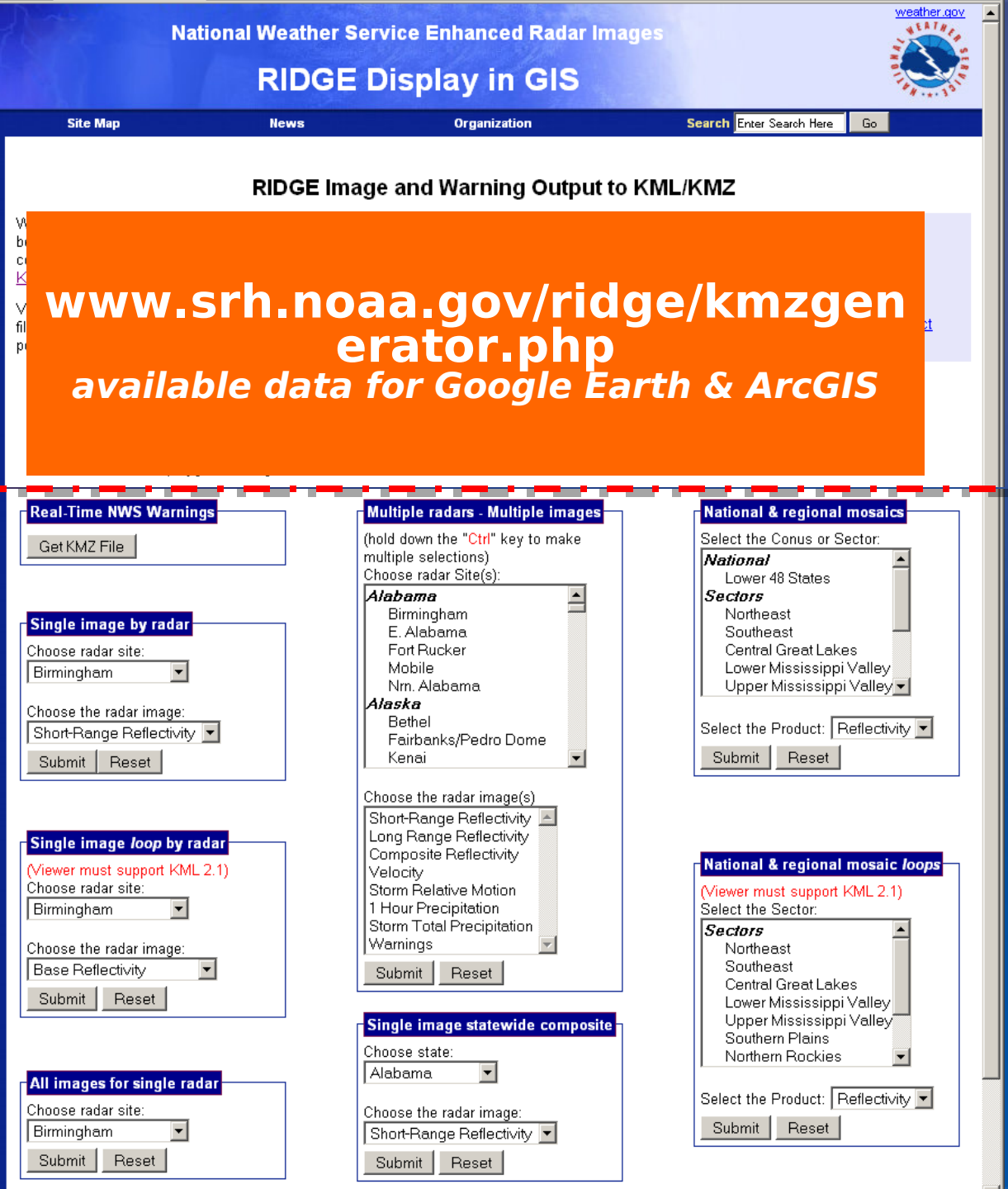
IMET Locations

Additional Info

Coastal Estuarine Bathymetry

nowCOAST web mapping portal

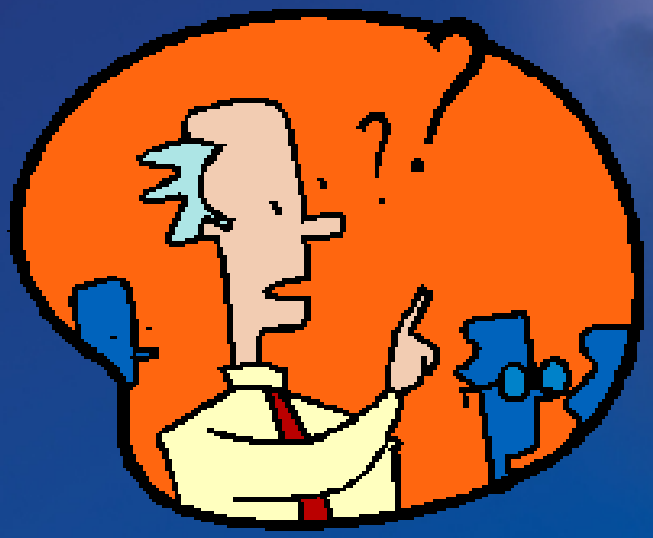
Click on a link to download a file. It should automatically open and load in Google Earth.



RIDGE Radar and Warning Data

- Single Radar or composites of multiple radars
- Single images or loops
- NWS warning polygons
- Auto-updating of images

Summary of GIS Resources

- www.wrh.noaa.gov/gis
  GIS shapefiles for Digital Forecast Data
- nowcoast.noaa.gov
  on-line mapping portal for real-time data and forecasts
- www.srh.noaa.gov/gis/kml
  data for Google Earth and ArcGIS
- www.weather.gov/gis
  NWS GIS data portal
- www.nws.noaa.gov/geodata
  static map background layers in GIS-compatible shapefile format

Questions ?